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JULY/AUGUST 2018
THE MAGAZINE OF THE SOCIETY FOR TECHNICAL COMMUNICATION

THE STATE OF TECHNICAL COMMUNICATION EDUCATION

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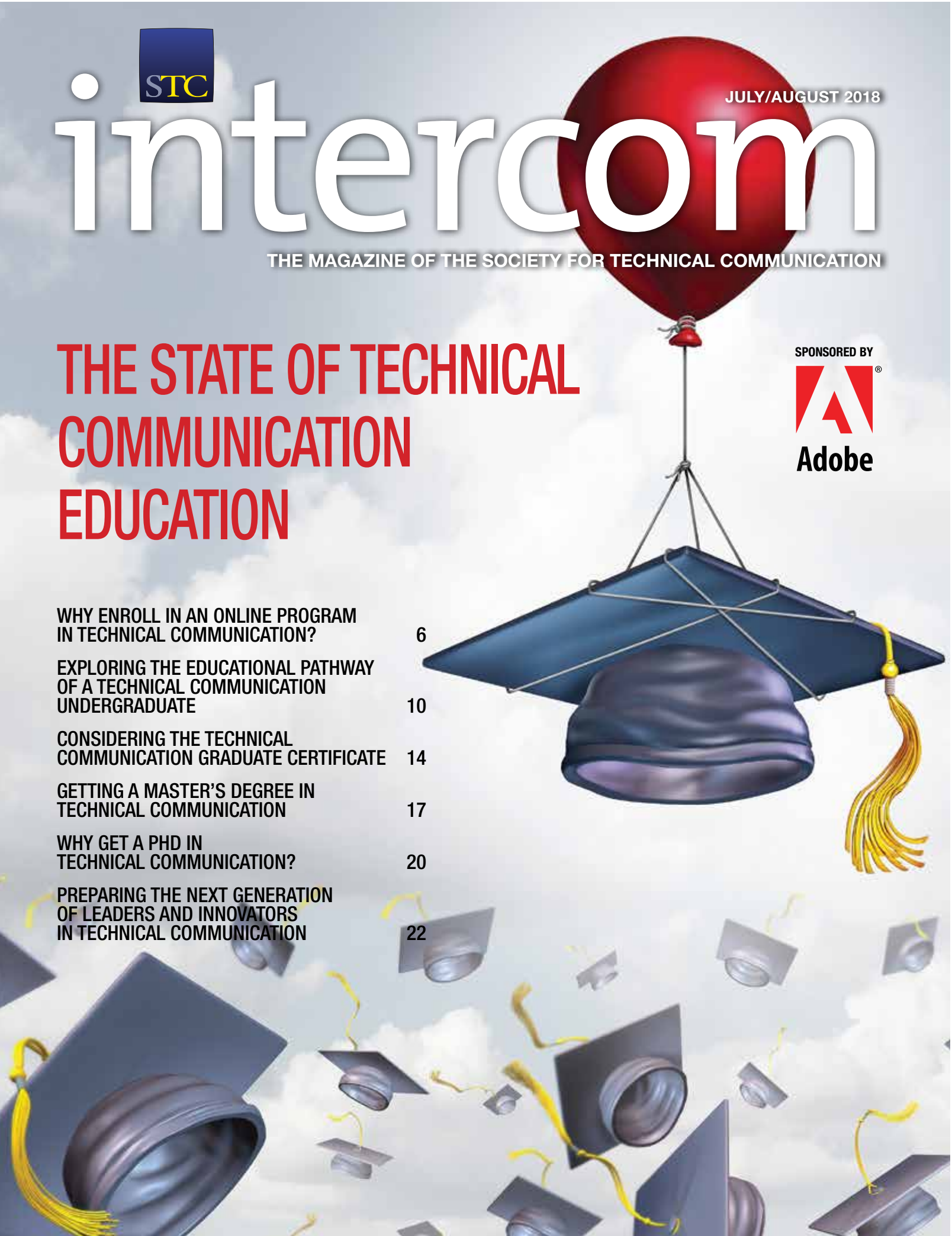

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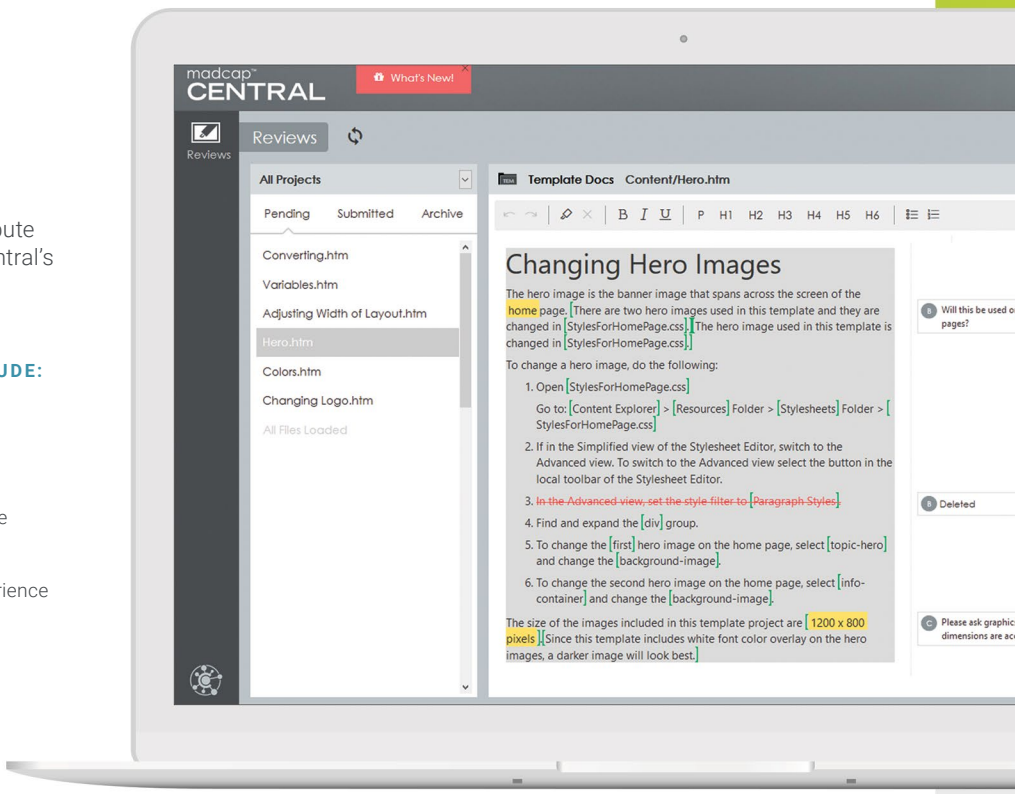
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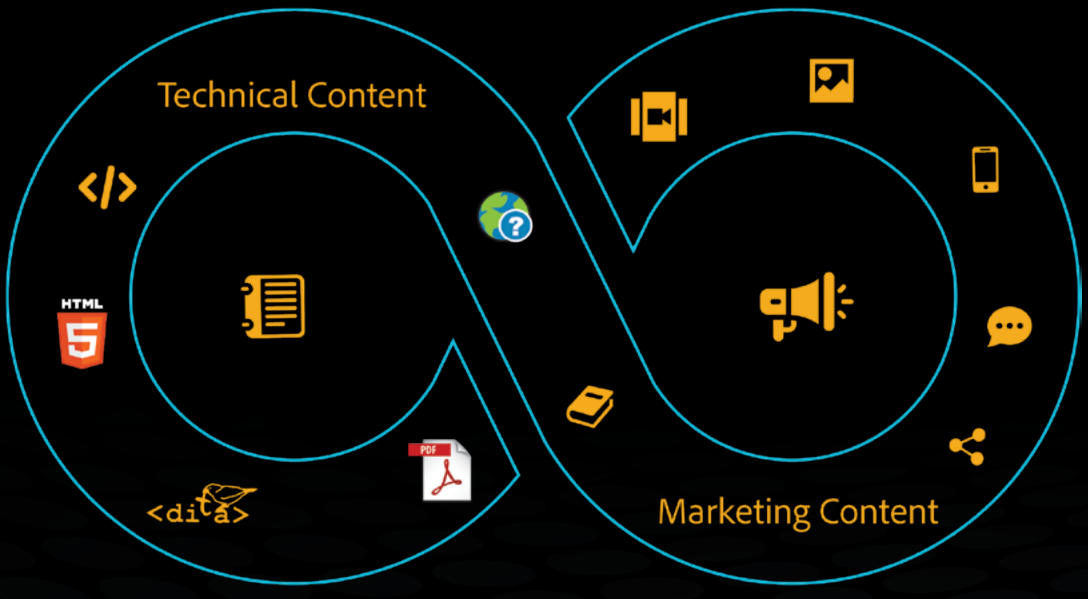

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A Note from the Editor

WHEN MY ACCOUNTANT completed my 2017 business tax return, her first question was, "What is all this 'continuing education' stuff?" I suspect many *Intercom* readers can relate when I say that I exemplify the technical communicator's insatiable quest for knowledge—albeit to an extreme that my accountant isn't happy about.

When I decided to leave IBM and start my new business, I realized that in entering a new phase of my career, I was starting over in many ways. While I had been a consultant for eight years before starting my IBM position, that was in the late 1990s. YouTube hadn't yet been born, there was no Twitter, no Facebook advertising, few blogs, and even fewer podcasts (aka "audioblogs").

Being in business in the twenty-teens is *very* different from being in business in 1999. What's a technical communicator to do? Start learning, of course! After declaring myself *tabula rasa*, I spent almost two years getting what I now think of as my "multidisciplinary, self-directed, alternative business degree." (In fact, I haven't actually "graduated"—don't tell my accountant!) Hence my accountant's dismay at my "continuing education" expenses—which, by the way, are *investments, not expenses.*

After bachelor and master of science degrees, developing courses and teaching at the university level for more than 20 years, designing curricula for a post-graduate certificate program, and a 35-year career based on a constant diet of information, I felt pretty confident about driving my own educational quest. And drive it I did. Many online courses, podcasts, books (audio, Kindle, and physical), membership sites, live events, mentors, coaches, and mastermind groups later, here I am. Am I done? No way! Will I ever be? Doubt it.

This, to me, is the common trait of all successful technical communicators—our natural attraction to lifelong learning and remaining teachable. The academic year might have ended in June, but we haven't stopped learning, or thinking about learning. Formal, degree-granting learning or self-directed, alternative experiences—either way, we voraciously absorb everything that comes our way. As a result, as an industry, we are always interested in the state of technical communication education.

In this issue, guest editor Dr. Kirk St.Amant provides us with a survey of experiences in education. If you've ever thought about getting a degree or going back for a second (or third), this issue's authors generously give us the benefit of their insights into various educational programs. You'll also find preliminary research describing trends that indicate the changes needed in academic programs to address skill gaps between technical communication program graduates and industry needs. In other words, there's something for everyone!

Kirk brings a wealth of insight to a magazine for practitioners with an academic theme. He is a Professor and the Eunice C. Williamson Endowed Chair of Technical Communication at Louisiana Tech University (USA) and an Adjunct Professor of International Health and Medical Communication with the University of Limerick (Ireland).

Kirk has also worked on projects in industry—for companies such as Medtronic, VERITAS Software, the Braun Corporation, and Unisys—and for nonprofit organizations.

Kirk is an STC Fellow, the past Vice Chair of the Association for Computing Machinery (ACM) Special Interest Group on Design of Communication (SIGDOC), and serves as the Interim Editor of *Communication Design Quarterly*—the ACM SIGDOC's peer-reviewed research publication.

Thank you to Kirk for editing this informative issue, and to Kelly Smith, Jessica Campbell, Lauren Jones, Lance Becker, Lindsay Saunders, Debbie Davy, Carlos Evia, and Rebekka Andersen for sharing their insights for our collective futures with *Intercom* readers.

Education in our field is such an important conversation for us to have, so I encourage you to *have a conversation* about it. Whether at a conference like the STC Summit, on the STC website in response to this article, or on social media—anywhere and everywhere—conversations like these are the way that we continue to lift the boats! #contentmovement

Also in this issue, you'll find some great columns:

Michelle Corbin tackles grammar checkers—should you or shouldn't you use them?

Alan Porter throws down a gauntlet, challenging us all to take our blinkers (or blinders, if you're an American horse person) off and broaden our view of tech comm disciplines.

Ryan Weber presents a call for column contributions—calling all students! Here's your opportunity to get published!

Paul Perrotta stands in for Scott Abel to provide us with the next Meet the Change Agent interview with … Scott Abel! Fascinating and appealingly meta.

And don't forget to check out the Society Pages!

Until next time, enjoy the issue!

Andrea Ames

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intercom

Intercom, the magazine of the Society for Technical Communication, is published to provide practical examples and applications of technical communication that will promote its readers' professional development.

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Address Changes: membership@stc.org
Intercom Editorial: intercom@stc.org

Reprint Permissions: www.copyright.com
Intercom (ISSN 0164-6206) is published 8 times a year (monthly, except for February, April, June and August) by the Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031-1803, a nonprofit educational organization, as a service to its membership. Membership in STC includes an online subscription to **Intercom**. Periodicals postage paid at Fairfax, VA, and additional offices.
Postmaster Send address changes to **Intercom**, Attn: Membership, c/o Society for Technical Communication, 9401 Lee Highway, Suite 300, Fairfax, VA 22031-1803.
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Examining Education and Considering Options

EVERY DAY, WE'RE BOMBARDED by reminders that continuous training and ongoing education are essential to career success in the modern economy. At the same time, the number of education providers offering courses, certificates, and degrees seems to be growing exponentially, as do options for study. Now, classes can be on-site, online, hybrid, real-time, self-paced, individually directed, or an almost endless mix of options. It just seems to go on and on, and it's a bit much. What we've created is a case of "educational information overload," and it's more than most of us can manage. The challenge for technical communicators is determining, "Which option is right for me?"

Answering that question is not easy with so many factors to consider. Perspectives, however, can help. By perspectives, I mean the reflections, opinions, and insights of others who have participated in different educational options and have ideas to share based on their experiences. The key is finding a balance of perspectives to help examine and assess options effectively. This issue of *Intercom* represents an initial move toward examining educational options in an attempt to achieve a balanced perspective. Like all initial attempts, the perspectives presented here are far from complete, nor are they comprehensive. They are varied in terms of the options they review and the programs they examine. As such, they help create a foundation of ideas, aspects, and factors that you can consider when making decisions about what educational options work best for you as a technical communicator.

The objective of this issue is to examine some of the educational options available to you, particularly those options offered by more traditional educational institutions like colleges and universities. In reviewing these options, it is important to recognize you will need to balance such educational undertakings with ongoing work obligations and a range of personal and family responsibilities. It is also important to be aware of factors that could affect what constitutes valuable and viable skills and knowledge in the future. For this reason, you'll want to compare current perspectives to prospective trends. Doing so can help you make decisions that address immediate and long-term educational objectives. This issue of *Intercom* examines both factors from the perspectives of those engaged in such activities.

The authors of the first five feature articles in this issue are working technical communicators who have written on the dynamics of different educational options and the related lifestyle factors to consider. Most of these authors also had to balance a job and a range of personal responsibilities as they pursued their programs of study. Additionally, they studied technical communication at different kinds of institutions—from private engineering schools to large public research universities—and via different kinds of programs including on-site, online, and hybrid. These contributors therefore represent a cross section of the individuals who might pursue educational opportunities in technical communication and a sampling of the options available to technical communicators in the field. The final feature article, in contrast, offers the perspective of career educators in the field. In this case, the two authors worked with individuals from industry and academia to

identify factors that could affect educational programs. Their entry examines how educators identify different trends when reviewing, revising, or developing educational offerings in technical communication. With these factors in mind, let's take a look at each article.

In the first article, Kelly Smith examines a key question: Should I go with an online option? Her response involves identifying factors one should consider when assessing online education. The issue then moves to a review of kinds of programs available to technical communicators. Jessica Lynn Campbell and Lauren Jones start this discussion by reviewing factors associated with undergraduate degrees (or courses) in technical communication. Lance C. Becker then examines the next step in the educational progression by looking at graduate certificates in technical communication via his own experiences in such a program. These discussions provide those new to or who wish to enter the field with ideas of the options available to them and the dynamics involved in certain programs.

Graduate degrees generally offer different educational experiences and serve a different population—usually individuals with prior experience in a particular area. They also often involve different commitments in terms of time, money, and focus. To examine such factors, Lindsay K. Saunders discusses the reasons for which she pursued a master's degree in technical communication, and how doing so reflects different professional and personal goals. (Note: In pursuing her MA, she made the move from graduate certificate to graduate degree within the same program.) Dubravka (Debbie) Davy then discusses the reasons she decided to pursue a PhD in the field after a successful career working as a technical communicator. In so doing, Dr. Davy notes factors potential students should review when considering such programs, and provides suggestions for how to evaluate the options and benefits of a PhD.

The final feature article provides a macro-level perspective of the field. In this entry, two professional educators—Carlos Evia of Virginia Tech and Rebekka Andersen of the University of California, Davis—provide an overview of ongoing research they are doing about how educators in technical communication can better prepare students for success after graduation. In examining this topic, Evia and Andersen have worked with industry leaders, university administrators, and professional educators to identify how curricula should change to address today's technical communication industry and education options.

Education is a complex topic involving a range of dynamics. Understanding such factors requires multiple perspectives and access to lots of different kinds of information. The entries in this issue represent an initial review of such factors. Ideally, we—as members representing different areas of the field—can continue the discussions of these topics as part of our professional interactions in the short and the long term. Let the discussions begin.

Kirk St.Amant

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Why Enroll in an Online Program in Technical Communication?

By KELLY SMITH | *STC Member*

IF YOU ARE JUST STARTING your career in technical communication, or have you reached a point where you can't advance without additional education? Have you never had formal technical communication training, or just want a challenge? An online technical communication program might be right for you.

A Quick Overview

Online programs offer many benefits to the working professional, including:

- Offering the flexibility to study almost anywhere;
- Giving you the chance to expand your professional and personal networks beyond your region; and
- Allowing you to select the program best suited for you vs. the one closest to you.

Deciding on an online program, however, involves understanding and assessing certain factors.

Instructional Dynamics

Team projects and group work are commonly used to help students from different backgrounds learn from each other. This means you must generally do your own part of the assignment (correctly and on time) and also coordinate with peers in different time zones to collaborate on assignments and activities. Additionally, for group projects, every team member receives the same grade, regardless of who did the bulk of the work (if this seems problematic, you might ask about doing individual assignments; some instructors allow such an option if that's your preference).

Participation generally counts in online classes. Attendance is normally part of your grade, as is how often and how well you participate in class discussions—whether in real time (live text, audio, or video chat) or time delayed (posting to a discussion board). This can be difficult if you're shy in front of a camera or microphone, or hesitate to jump into a discussion. If such factors cause you a lot of anxiety, the instructor might allow you to participate via other mechanisms.

Online classes require good time management skills. When the classes take place online, it can be easy to forget that you have work to do in between. Can you manage your time well enough to do all the reading and homework assignments? Can you keep up with emails from classmates and professors? Do you have time throughout the week to work on assignments and participate in online discussion forums? It's easy to fall behind, but your instructor wants you to succeed. Don't be afraid to ask for help.

Commitments and Choices

We all have outside commitments. Work, family, friends, and community all demand our time. Can you juggle classes on top of all that, or will something have to slip? Before you select an online program, talk to your family about such factors. Make sure they remember that your enrollment in an online program means you'll need to dedicate time to homework and classes, even though you're not leaving the house to attend in person. If your employer is paying for the classes, that employer might allow you to do assignments during work hours, which will help tremendously with balancing commitments.

A variety of programs are available, from certificates, undergrad courses, master's courses, and even PhDs. Which one you take should be based on your own needs, or that of

your employer. Some are geared toward practitioners who need to learn practical skills they can use right away in the workplace; others are designed more for academics and focus on expanding scholarly research in the field.

There are different methods for delivering education. Some online classes offer no real-time communication with the instructor or other students. Some might require you to attend some classes in person during a given term. Others take place entirely online using a blend of synchronous meetings and asynchronous assignments. The key is to select the type that best suits your situation and personality.

Time Considerations

Do you have time? Taking even one class at a time is a big commitment. Some weeks you may have 80 pages of reading, an online meeting, an assignment to write, a peer review to perform, and online discussion questions to respond to. Make sure you'll be able to dedicate the necessary amount of time to your classes. If you don't know how much time it will take, speak to the academic advisor for the program before enrolling. They can usually give you an estimate.

Do you have the discipline to complete an online program? While certificates might be earned in a matter of weeks or months, university degrees can require years of work. Look ahead and try to determine if other planned events in your life may require your time. Can you work around them? Related to this, are you good at sticking with something until the end? If you start a program, will you finish it?

Are you good at self-direction? No one else can do your reading and assignments. No one else can participate in the online meetings for you. Your classmates and team members will rely on you during group work. Do you have the ability to stay focused and get your work done on time?

Technology Factors

Do you have the necessary technology? Most online classes require a decent computer, a headset with a microphone, and a webcam. You will likely need software such as Microsoft Office and Adobe Reader, as well as other specialized applications for particular classes.

What learning management system (LMS) does the school use? This is not a question I would have thought to ask, but my classes started off using Blackboard, which is an older LMS. It's one I've used before, and I disliked the archaic and confusing interface. Mid-way through my program, the university switched to Canvas, which is modern and much more intuitive. The kind of LMS used can make doing your classwork a breeze or a bother, so it's worth asking the question and maybe getting a demo or reading some reviews. It could be the tie-breaker between two otherwise equal programs.

Human Dimensions

Consider your personal needs and interests. Is the program directly related to your current or desired job? What branch of technical communication are you in or want to be in? That will be the primary determining factor in the program you select. Do you want to advance your career, sharpen your skills, or develop new skills? Different classes can help achieve each of these goals.

While selecting a program, also try to assess the quality of the instructors. What is their experience? What are their qualifications? This information should be available on the university website and can help you determine the overall focus and quality of the program. Do they have academic backgrounds, or have they worked in industry? Which is more important to you?

Financial Factors

All classes and programs cost money. Student loans are an option, or you can save up or pay out of pocket. But even better is having someone else pay the bill. Does your company offer tuition reimbursement? If so, find out how to qualify.

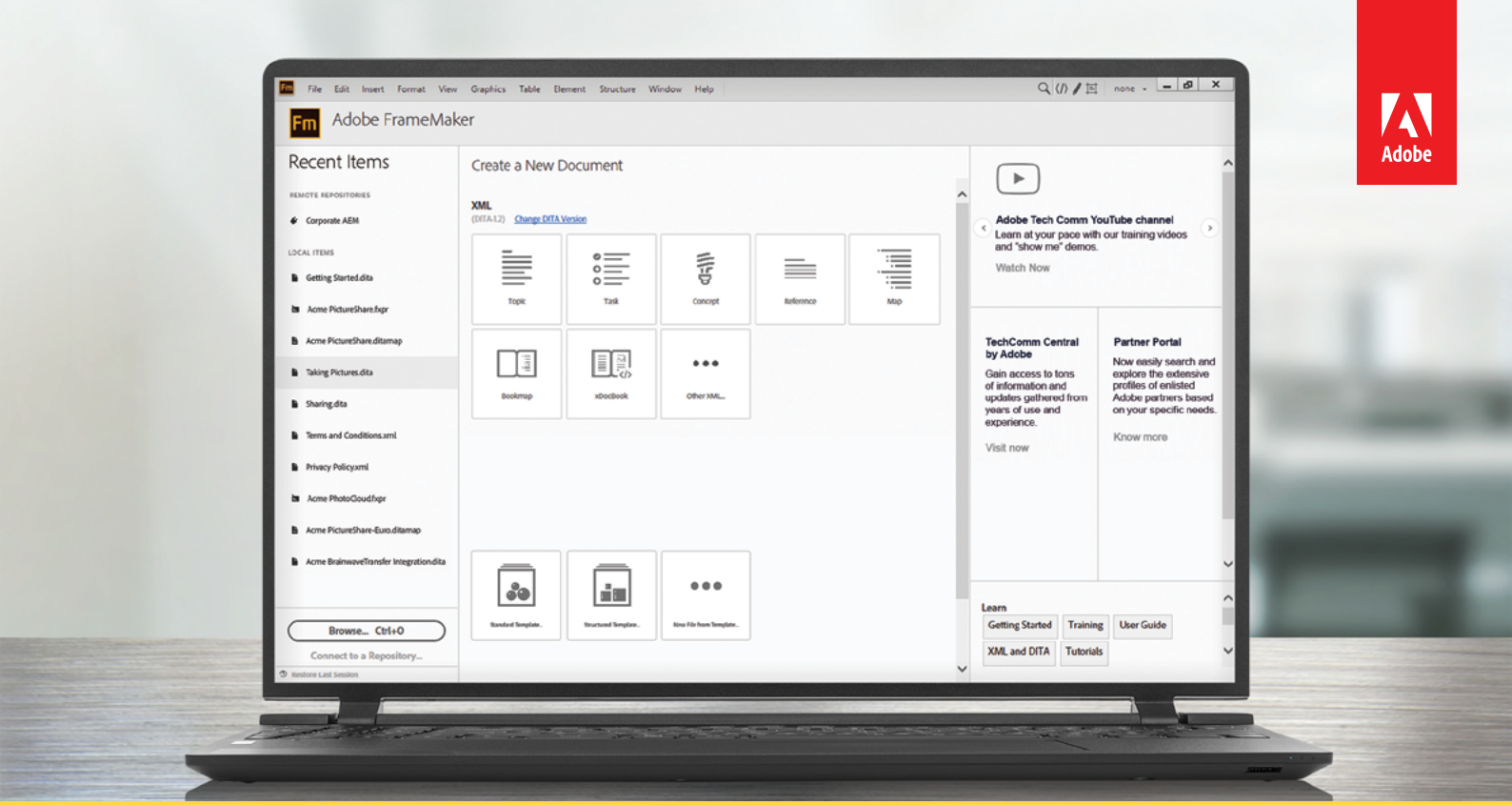
Some companies only offer this perk to full-time employees or employees who have been with the company a certain length of time. Most require a promise to remain employed for a set period of time afterward or you must pay them back. Are you okay with that? Most of these policies only cover tuition if you get a good grade (usually at least a B), and most put an annual cap on how much they will reimburse you for tuition costs. Is that grade achievable for you, and is the cap high enough to meet your needs?

If your company doesn't have such a policy, you may have to convince them that paying your tuition will be a benefit to them in the long term. Try to explain what they will get out of it and how educating you will help the company. Explain why they should invest in you.

Final Thoughts

As an adult learner, you have a lot of control over what classes you take, and how you participate in them. If you have special needs or require accommodation, even for something minor like turning in a project a day late, don't be afraid to ask. Most instructors understand that working full-time and going to school is difficult, and life intervenes. Most will give you quite a bit of leeway if you need it. They want you to succeed. Carefully thinking about the benefits, challenges, and considerations of online classes can help you do that. Good luck!

KELLY SMITH *(*KellyMJSmith@gmail.com*) has been a Gold Member of STC since 2015. She works as Senior Technical Writer on the Business Continuity Corporate Systems Team at Dart Container Corporation in Mason, MI. She is currently earning her MS in Technical Communication Management at Mercer University School of Engineering and will graduate in 2019. Kelly has published two books:* Open Your Heart with Quilting*, and* How to Build, Maintain, and Use a Composting System.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Exploring the Educational Pathway of a Technical Communication Undergraduate

By JESSICA LYNN CAMPBELL | *STC Member,*
and LAUREN JONES | *STC Member*

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THE CONTINUOUSLY EVOLVING areas of information technology, online platforms, and multi-media communication make technical communication an attractive field for new college graduates. As a result, students are increasingly choosing a major in technical communication to gain the knowledge and skills needed to obtain successful employment in today's digital environment. Considering the diverse tasks technical communicators do on the job, students entering the workforce might be unaware of what fields they can work in, what skills may be necessary, and even what job titles to search for. A few key details can help them succeed in these activities.

Foundational Skills

Technical communicators can work in any field, as well as fulfill numerous roles, but what exactly are employers looking for? Recent research can help answer this question. Some research, for example, notes technical communicators should specialize in a certain skill set and become an expert in one area. Others, however, indicate a broadened skill set will make professionals more effective in the workplace (St.Amant 2016). According to certain scholars, the core competencies one should have include: project planning, project analysis, solution design, organizational design, written communication, visual communication, content development, content management, and final production (Batova and Andersen 2016).

Historically, technical communicators were trained in purposeful and clear writing; however, considering today's digital landscape, technical communicators are now using various media to communicate to a larger audience. As such, technical communication has become an interdisciplinary field using theories from disciplines such as cognitive science, philosophy, and sociology. While usability and audience-centered design skills remain important, there is a growing need for applying related skills to content development in areas such as Web design, digital media, and other information and communication technologies (ICT). Students, in turn, need to review the educational options available to them and consider the pathways—both coursework and internship or work experience—that would help them best develop such skills.

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For upcoming classes, visit www.groupwellesley.com/cptc.

Interactive Skills

Collaboration in the workplace is necessary. As use of component content management (CCM) increases, so does the need to work collaboratively. Technical communication students who broaden their skill sets to include small group communication and collaboration might thus be better suited for environments where work is more collaborative and holistic. Additionally, this helps prepare students to serve as forum moderators in product development, testing, and marketing processes (Frith 2014).

Management skills are also important. Content developers, for example, gather information and research to develop into content for clients or employers. Such tasks involve different resource management, time management, and even project or team management skills. Pairing these skills with competencies in business, technology, and design enable novice technical communicators to further expand job opportunities in ways that could mean the difference between obtaining a content developer job or a higher level content strategist job (Batova and Andersen 2016).

Breadth or Depth of Skills?

New technical communicators can become an asset to employers by narrowing their expertise to one area of focus. Yet research is conflicting on whether to focus on developing specialized skills or gaining knowledge in a wide range of skills in order to expand one's career options. For instance, some recent scholarship suggests marketing experience to be most helpful when pursuing a role in social media writing, content development, or content management; likewise, having a background in the medical field is advantageous when pursuing a medical writing role (Lauer and Brumberger 2016).

Other research notes certain technical communication roles require a specialized skill set, but also recommend novice technical communicators initially develop a wide variety of skills to keep options open (Baehr 2015). As the technical communication field increasingly includes more modes of communication, participants, and audiences, students need to think of themselves not just as writers and editors, but also as quality control experts, translators, information architects, and managers (Batova and Andersen 2016).

Pairing Skills with Job Titles

Several factors contribute to job classification. Understanding such dynamics can be key to graduates locating the right technical communication job in today's workplace. As Baehr explains, "[W]here in the organization the job

What capabilities and skills do employers require for typical technical communication positions? (Brumberger and Lauer 2015).

Job Title	Competencies	Tools/Technologies
Content Developer/Manager	audience awareness, content development/management, editing, project planning/management, web analytics, written communication	Adobe Photoshop, Content Management System (CMS), Microsoft Office, HTML/CSS/JavaScript
Technical Writer/Editor	editing, project planning/management, research, style guides/ standards, visual communication, written communication	Adobe Acrobat, Adobe Photoshop, Adobe Visio, Microsoft Office
Grant/Proposal Writer	editing, project planning/management, research, editing, subject matter familiarity, verbal communication, written communication	Adobe Acrobat, Adobe InDesign, Adobe Photoshop, Microsoft Office
Social Media Writer	editing, project planning/management, research, subject matter familiarity, verbal communication, written communication	Adobe Acrobat, Adobe InDesign, Adobe Photoshop, Microsoft Office
Medical Writer	editing, project planning/management, style guides/standards, subject matter familiarity, visual communication, written communication	Adobe Acrobat, Adobe Photoshop, CMS, Microsoft Office

[is] located, the amount of time spent creating content, the relationship to products, or in some cases, self-selected titles influence job classification" (2015). Students, in turn, need to familiarize themselves with such dynamics. Common technical communicator job titles include: content developer/manager, technical writer/editor, grant/proposal writer, social media writer, and medical writer (Frith 2014). Understanding these positions and their related expectations is important for students entering the workforce.

Today's graduates need to know these job titles and their differences when searching through job postings on websites like *linkedin.com*, *monster.com*, and *careerbuilder.com*. They also need to regularly review such postings to learn what requirements employers associate with different technical communication positions. Students who know how to find, read, and respond to such postings can begin to assess what experience and training are essential to enter a particular field and structure their studies accordingly. They might also explore prospective internship opportunities to gain certain skills and experiences (Lanier 2009).

Conclusion

The technical communication job market is replete with both generalists and specialty roles; students should therefore explore opportunities to gain an understanding of a range of topics and practices, as well as consider developing knowledge in a particular focus area. Possessing a range of skills will provide new graduates with the ability to navigate job searches and changing work environments. In the end, the more students understand the dynamics of the field and jobs available, the better they can shape their studies to meet the expectations of today's workplace.

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Considering the Technical Communication Graduate Certificate

By LANCE C. BECKER | *STC Member*

TODAY, TECHNICAL PROFESSIONALS—engineers, scientists, etc.—can increasingly find themselves performing writing and communication activities for which they were not formally trained. Similarly, persons with backgrounds in writing-related areas (e.g., English or communications) might be considering jobs requiring them to produce technical documents they've never encountered before. In both cases, individuals need quick, effective, and targeted training that is more focused than a formal degree program. A graduate certificate in technical communication can be the solution.

For me, the decision to pursue a graduate certificate in technical communication addressed the need to do more communication-related activities for my work. Combining my applied engineering background with the courses in a certificate program provided me with the skills needed to address end-user expectations at my current job. As a result, I can now readily identify a problem or need and quickly develop related recommendation reports, proposals, and procedures to deliver information directly to different audiences.

The Benefits of a Certificate in Technical Communication

Certificate programs can offer a range of benefits for individuals who need targeted instruction in areas related to the workplace. These are generally connected to the configuration of such programs.

Benefits to the Professional

The structure of a graduate certificate program allows you to focus on honing your abilities to communicate detailed information to different audiences. Unlike degree programs, which usually involve 10+ courses (for a master's degree), most certificate programs require less coursework (usually five courses). This means certificate programs often take less time to complete (usually 1-1.5 years) and generally cost less. My certificate program, for example, consists of five courses, and I will complete it in one year—less than half the time needed to complete an MA in the field.

Also, graduate certificate programs often focus on developing workplace-related skills vs. requiring courses not directly related to your career goals. This allows you to hone the communication skills connected to the work you will do in your current or prospective jobs. The courses I have taken, for example, allowed me to develop my skills in report preparation, proposal development, and procedure writing. These abilities are key to my current job as a field engineer who regularly arrives at the site and must quickly evaluate a problem and prepare reports that include proposed solutions and related procedures.

Benefits to the Employing Entity

Employers also experience the benefits of graduate certificates. Employees who possess effective technical communication skills can help organizations share key information more quickly and effectively. From a bottom-line perspective, this translates into readily delivering quality products to different audiences.

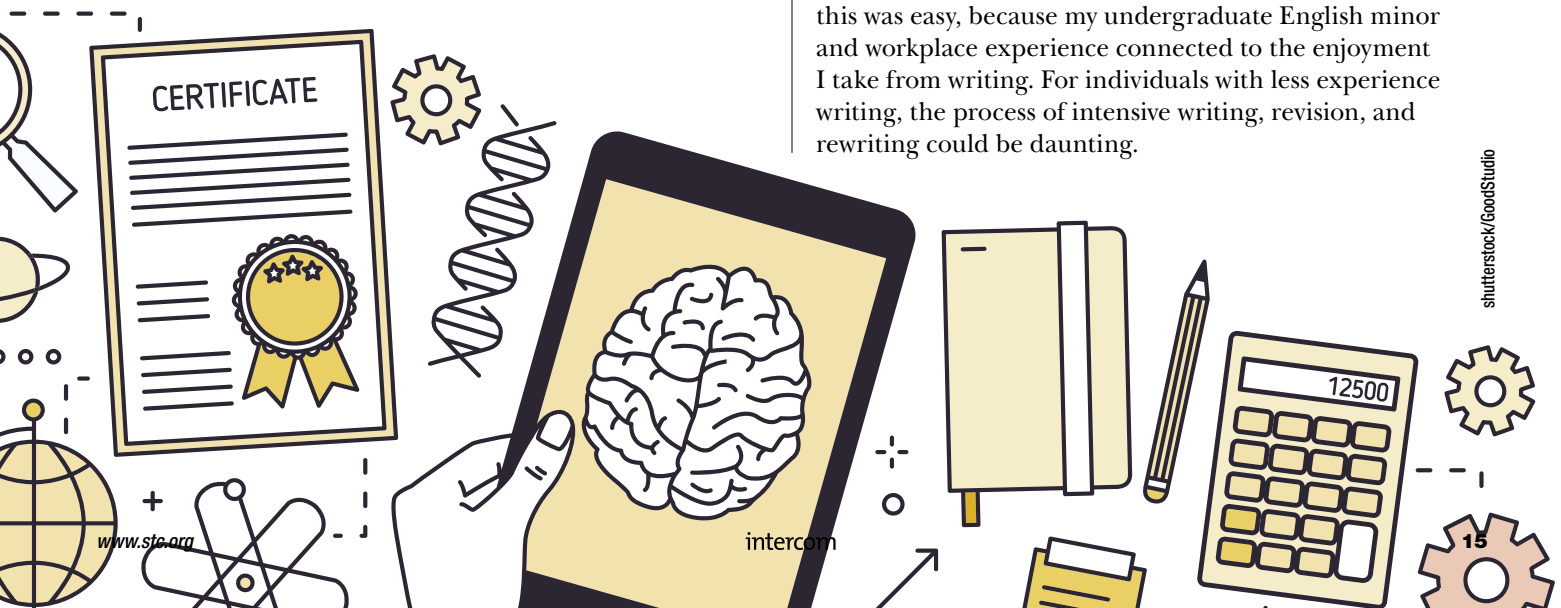
In my case, I've seen these benefits in terms of cost and time savings. My ability to effectively produce documented solutions and procedures means end users receive needed information quickly. This allows the departments that use such materials to perform certain tasks more quickly and to share their own information more readily. The result is a decrease in production time due to the effective sharing of technical information.

Factors to Consider Before Pursuing a Graduate Certificate While Working Full Time

Doing graduate work involves dedicating time to a course of study. If you are interested in a graduate certificate in technical communication, you should therefore consider certain factors before committing to such a program.

Writing

The first factor to consider is your feelings about writing. Graduate certificate programs involve extensive writing, review, revision, rewriting, and then more writing. If you don't have an affinity toward writing and communication, a graduate certificate program can be challenging. For me, this was easy, because my undergraduate English minor and workplace experience connected to the enjoyment I take from writing. For individuals with less experience writing, the process of intensive writing, revision, and rewriting could be daunting.



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Commitments to Work

Time committed to work is also a key consideration. If you have a full-time job, you might have difficulty finding the time to participate in required courses. Additionally, full-time employment can involve unexpected overtime hours that can affect the time you can devote to classes at any given point. For this reason, you need to determine how much time—both current and anticipated—you need to dedicate to your job. Only then can you determine if you have the time needed to take on certificate studies. In my case, I regularly spend six hours per week doing a variety of reading, researching, and writing related to the certificate class I'm taking. To do so, I have used evenings and weekends, rather than restructuring my work schedule.

Commitments to Family

You need to consider all of your time outside of work, including family time, when planning to pursue a graduate certificate. Family life, social obligations, and other commitments must be figured into your decision. I had to plan carefully to balance such factors and determine how to allocate time for studies to avoid affecting important family events (e.g., my children's jazz band competition).

Accreditation and Further Study

A final consideration is whether the institution offers accredited, graduate-level, academic credit. "Accreditation" means the U.S. Department of Education recognizes the institution as awarding specific degrees, certificates, and varying levels of college credit. This factor can affect how employers and other institutions view the legitimacy of a program. You can research a program's accreditation on the U.S. Department of Education database of accredited post-secondary institutions and programs at *https://ope.ed.gov/accreditation*.

Upon completion of the certificate, you might be able to apply your classes toward an advanced degree (e.g., an MA in English) at an accredited institution if desired. If your long-term goal is to obtain an advanced degree, then such an option is worth investigating when selecting a certificate program.

Factors to Consider in Determining If a Program Is Right for You

Finding the best certificate option involves understanding dynamics that can affect participation in a program. This can involve considerations related to location.

How, When, and Where

How, when, and where you can participate in a program is a top concern if you are working full time. As work hours and family or social obligations can vary, you might not have the time needed to commute to or attend on-site classes every week. Also, class schedules can conflict with work or other commitments. So, unless a program fits effectively within your existing schedule, your ability to participate may be limited.

Like many working professionals, my job and existing commitments made on-site options impractical. I selected an online certificate program, and the benefits have been tremendous. I have been able to use my mobile device to connect to courses at any time and from anywhere, allowing me to participate at different intervals throughout the day. However, there have been limitations, such as the lack of face-to-face communication with instructors and peers. The key is knowing what options are available and the benefits and the limitations of each option.

Online Options

Online, asynchronous programs are an effective option for full-time working professionals. Flexible and without traditional daily or hourly schedules, they generally allow professionals to participate and to complete assignments, quizzes, and tests at any time during the week. For me, the greatest benefit involves getting course updates on my mobile device, thinking about an assignment throughout the day, and then going to my computer to write about what I have been contemplating.

This approach allows you to plan your school time around work, family, or other commitments vs. the other way around. The greatest challenge is not letting a crazy day or hectic week prevent you from keeping up with weekly activities. The trick is to stay ahead so you never fall behind.

Conclusion

Technical communication involves conveying the findings, results, and recommendations of technical or scientific work to different audiences. A graduate certificate in technical communication is an effective means of obtaining the training needed to do such work. Success involves considering key factors to identify the program that best works for your needs and with your schedule. By considering the items discussed here, you can select the right kind of program for you. From that point, success involves allocating the time needed to participate effectively in your courses and determining how such programs can contribute to your short- and long-term goals.

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Getting a Master's Degree in Technical Communication

By LINDSAY K. SAUNDERS

OBTAINING A GRADUATE DEGREE was always a dream of mine. However, selecting the right program was impossible until I found one that allowed me to merge my backgrounds in education, law, and communication with a program of study focused on developing the career-based skills needed to succeed in a variety of professions. What I learned during my MA studies both expanded the knowledge I gained as an undergrad and helped me apply new skills and ideas in different professional contexts.

Making the Career Transition with Graduate Knowledge

Currently, I am a Development Outreach and Communications (DOC) Specialist for the United States Agency for International Development (USAID) at the United States Embassy in Lusaka, Zambia. In 2016, I was looking for a major change, so I took a chance in applying for different jobs nationally and internationally. I'd never been to Zambia, but it turned out that I had an upcoming trip to

visit foreign aid sites with a nonprofit called RESULTS—a movement of everyday people who use their voices to influence political decisions in order to end poverty. Through my position with USAID and my prior work with different kinds of organizations, I've discovered how my MA in technical communication can provide more ideas to expand the message of advocacy for public buy-in of grassroots solutions and professional resources, which could be used in government policy. I use the focused technical communication skills acquired in my MA studies to explain complex policies to government leaders in an effort to maintain their support.

When you work with information and communication, you must always consider who your audience is, how best to reach them, and ways in which to break down information for them. Getting my master's degree prepared me for the unending need to think critically, take initiative, and think outside the box—all essential to addressing such situations. I learned to dig for answers before asking questions because, in our line of work, we must be prepared to provide the information people need to know *before* they even know they need it. Getting a job in communications for a government or nonprofit required me to have that ability, and my graduate degree helped reframe how I approached projects.

Aspects of Master's Studies

The decision to pursue a graduate degree in any field is a big step. Such programs, however, do more than help individuals hone existing technical and communication skills. They also allow students to develop a range of leadership or management skills that can be essential to future workplace success. These include:

Goal Setting

I had ideals to emulate. Some people thought I was crazy for name-dropping Google, Unicef, and the United Nations, but I had to have entities to aspire to. The project planning, team management, and time allocation essential to doing graduate studies helped me to develop the skills needed to simultaneously focus on both short-term and long-term project (i.e., career) goals. This let me keep an eye on what was in front of me while not losing sight of my long-term objectives.

Continuing Professional Development

It's always something to keep in mind. Even in Zambia, I'm taking a French class, reading books about global development, and taking advantage of any and every opportunity to learn about how foreign affairs works. Graduate training teaches you how to take charge of your own learning, find needed training resources, and—when necessary—train yourself in how to use technologies or perform tasks associated with working on a project. It can also provide you with more visible professional development opportunities (e.g., departmental talks, student meetings, and university symposia) that can help you learn how to expand your education in other ways, as well as develop important social networks.

Risk Assessment

Graduate studies often involve assessing the time needed for projects and making calculated decisions about how to allocate one's time. Some students have control over the projects they work on, and they need to determine what activities to undertake based on identifying and assessing risks (e.g., how much time and effort a project will take) vs. rewards (i.e., how an innovative project can affect one's grade). Students in graduate programs thus continually identify and evaluate such factors as they move through their studies—ideally, with the process getting more complex as the student moves through a curriculum. Through such training, individuals can hone their time management and project management skills while also learning how to identify and assess the risks associated with projects and plan accordingly.

What's key about these skills is they apply across a range of technical communication areas and industries. They can also help individuals succeed at any level—from new employee to division manager—within an organization.

Knowing Constraints When Making Decisions

Was a master's degree worth it for me? Yes; I love my job and getting my graduate degree has fueled my ability, confidence, and passion to work in public service. To determine if a master's degree is right for you, consider the following:

Work Ethic

A first, major consideration is whether you are at the right point in your life and career where you can do the work expected of a graduate degree program. Getting a graduate degree is hard. I ended up getting my master's degree through an online program while working full time in a different part of the state. As an MA student, I had to work twice as hard to prioritize my day job, finances, schoolwork, health, personal relationships, and organizational involvement. Managing all that while being in some classes that pushed critical thinking felt a bit overwhelming at times, but I came back and succeeded every time. The major takeaway: you cannot slack off—you must be willing to put in the work for a graduate degree.

Affordability

A second major consideration is the cost of getting a graduate degree. Is this a degree you can afford? Will your employer pay for it, and will you need to take time off from work or even change jobs to take courses? For me, graduate program options were available in my local area, but the challenge was fitting them within my work schedule at the time. The idea of taking time off from work or having no job in order to do graduate coursework was simply not financially viable for me. For this reason, I selected an online program that let me keep my job and pursue my graduate studies.

[T]ake the time to assess what factors can help identify a program that meets your goals and objectives.

Focus

For many working professionals, the overall purpose of getting a master's degree is to hone your skills in a way that allows you to focus on the career path you wish to follow. The key item to remember is not all graduate programs cover the same topics or focus on helping students develop the same foundation of skills and knowledge relating to the field. This lack of "fit" (i.e., the program does not *fit* with or help me obtain my objectives) is a major factor to consider when selecting a master's program. For me, there was a nearby program that offered classes outside of my work schedule. The focus of that program, however, was in an area that did not connect to my overall career goals or objectives. For this reason, I opted for an online program that did align with my objectives, and the resulting fit greatly helped me get the most from my studies.

In the end, the master's degree you select should be based on what works best in terms of your goals and according to your schedule. For this reason, it's important to take the time to assess what factors can help identify a program that meets your goals and objectives.

Final Thoughts

In the end, it comes down to selecting the program that works best for you. In making your decision, consider the following questions:

- Does the degree have value for you at a professional and/or personal level?
- Does studying different perspectives, trends, and approaches in technical communication excite you, even when it frustrates you?
- Have you talked to other people who have completed programs similar to your interests? If so, what were their experiences while enrolled in and after completing the program?

Use your answers to guide your decision, and you should be able to find the master's program that will work best for you.

LINDSAY K. SAUNDERS *(*lindsayksaunders@gmail.com*), originally from North Carolina, is enjoying the lessons of life abroad in Zambia and is privileged to serve as a Development Outreach and Communications Specialist for USAID. She has a weekly email newsletter and shares her journey on Instagram, Twitter, and YouTube. Visit her website at* www.lindsayksaunders.com *or follow her on social media* @LindsayKelleyS.

Why Get a PhD in Technical Communication?

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By DEBBIE DAVY

A 2010 *THE ECONOMIST* magazine article bemoans the decreasing value of a PhD. It ends with the premise the PhD does not buy the graduate a place of wealth or importance, and begs the question "Why bother?" More recent media coverage seemingly reinforces this perspective. Yet, for individuals in technical communication, the situation is different. I believe a PhD supports practical experience with theoretical knowledge and makes us more valuable to business. The key is understanding how the PhD can be of benefit, the costs associated with pursuing one, and ways in which to leverage the PhD upon completion.

What Are the Benefits of Getting a PhD?

To advance professionally, we need to continuously improve our knowledge base and practical experience. This is driven by the needs of our profession and of our employers. Historically, business may have overlooked the contributions of technical communicators in solving business challenges (e.g., institutional knowledge retention, optimum human factors, engineering design, etc.). Today, this perspective is changing, and a PhD can be a mechanism driving such change.

Marking Technical Expertise

A PhD indicates expertise—specifically, research expertise in a focused topic. Today, earning a PhD is still considered the pinnacle of educational achievement and a marker of technical expertise for many of the technology-focused companies where we work. The recognition of expertise indicated by a degree is there, and the key is conveying that expertise to reveal the value that PhDs in technical communication can add.

A first step is conveying how acquired research expertise indicates management and planning expertise in researching human behavior. To obtain a PhD, one generally has to plan, oversee, document, and report on a long-term research project that, in technical communication, examines how individuals communicate about or with some aspect of science or technology. This experience marks PhD holders as effective researchers and project managers.

When combined with the critical aspect of PhD studies, research on identifying and critiquing patterns of communication can contribute to the design of a technology. A PhD in technical communication can indicate expertise in research and design, as well as in usability testing and gathering user data and information on consumer perceptions and habits. If we can convey our expertise to businesses, we can establish the PhD as a marker of not just technical expertise, but *value-added* technical expertise.

Conveying Cultural Gravitas

A second step is connecting degrees to international ethos. Other cultures associate credibility, or gravitas, with an advanced degree. In fact, certain cultures perceive such degrees as so significant that individuals often change their names to include this marker on official documentation (e.g., adding "Dr." to one's name on a passport). Such perceptions can be important to establishing the technical communicator's and organization's credibility with prospective international partners.

This degree-based gravitas can be of value to organizations involved in or seeking to move into the global marketplace. In such cases, employees with advanced degrees can contribute to the value of the organization by representing high resource expertise and even high product or service quality in global marketplaces. Again, the key is making employers aware of how such credentialing in technical communication contributes to an organization's credibility and the perceptions international partners might have of its products and services.

What Should You Consider If Interested in Getting a PhD?

The decision to pursue a PhD is not easy, nor should it be done quickly or taken lightly. It is a commitment to a lifestyle of study involving a regimen of reading, research, writing, editing, and revising. For this reason, individuals interested in a PhD in technical communication should consider certain factors when deciding to pursue a degree and what type of PhD program they should consider.

Availability

The first item to consider is the kind of program available based on your location and the nature of your job. Currently, most programs in the field offer on-site programs, yet a few do allow individuals to do PhD work primarily online. When I was considering a PhD in technical communication, the only options available to me were online programs. However, you will certainly have more options if you can attend in

person; it will be easier to get face time with professors and other students. In my case, I only looked at schools with online programs, as there were no PhD programs at universities near me with programs in technical communication. I also considered other program-related policies, such as taking time off (which I was able to do for a life event).

Resources

When considering a program, it is important to understand the resources (e.g., funding, labs and facilities, library holdings, etc.) available at the university and review the work the faculty has done and is doing. Larger universities often have access to more resources through library networks and relationships with other institutions. Access to more databases expands access to research materials. However, if a resource-rich university is not a viable option, your university might have reciprocal privileges or access through other nearby institutions.

Faculty

The faculty you will be learning from is critical, for it is they who will provide you with the training associated with becoming an expert researcher in a key area. For this reason, the faculty at an institution, what they study, and what and where they have published, are important items to consider. Programs, in turn, often focus on specific aspects within a field because of the faculty members' expertise. For example, a technical communication PhD program might focus on rhetoric, whereas your interest is in human factors in engineering. A review of the faculty could help determine if the program is right for you.

Focus

When researching PhD programs, it is important to have an idea of the topic you want to study. A PhD program is narrowly focused on an area in the field, and unless the program offers what you want, there is a risk of you not completing it. My PhD research focused on rhetoric, which narrowed my list of programs further.

Time

Time is a critical challenge when considering a PhD program: time to complete a technical communication PhD and time required to do the work. This varies from person to person and program to program, but one should be prepared for four to eight years of study. This time is typically divided into three parts: course work, qualifying exam preparation, and dissertation work. PhD programs also require students to spend a significant time reading, researching, and preparing for classes (in my case, I had online classes once or twice a week for several hours each). Workload in my case averaged 20 hours per week and involved readings for class, researching and drafting papers, and working on projects with fellow students. When you start the research phase, the time commitment will depend on your access to material and, in my case, to individuals who were key players in my research.

Cost

The cost of a PhD program involves multiple elements. There is the cost of the program registration, which is significantly more for international students. If you are working full time but decide to pursue the degree full time, there is a potential loss of income. If you are in an online program that requires yearly campus attendance, there is the loss of income and the cost of attending on-site classes (e.g., food, travel, and lodging). Depending on the focus of your courses and research, there is the added cost of course materials. In my case, the cost has been well worth it, as I've been able to participate in new projects not available to me before the PhD.

Concluding Thoughts

Today, technical communicators face increasing challenges to be seen as valued contributors. A PhD in technical communication can be an effective step toward that end. It can expand your professional network, increase your gravitas as a subject matter expert, open research opportunities that enhance the technical communication body of knowledge, and increase your compensation. My own PhD experiences have enriched my life. I learned from top people in the field, and the committee members who supervised my PhD research were personal mentors who contributed to my success in and after the program.

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Preparing the Next Generation of Leaders and Innovators in Technical Communication

By CARLOS EVIA | *STC Member* and REBEKKA ANDERSEN | *STC Member*

IN 2015, REBEKKA COEDITED two *IEEE Transactions on Professional Communication* special issues on content management and its impact on professional and technical communication. One of the special issues included a teaching case, coauthored by Carlos, which described how the Professional and Technical Writing program at Virginia Tech worked with practitioners to keep its curriculum connected to industry trends. That initial connection started a years-long conversation about preparing students for roles as leaders and innovators in technical communication. We have often discussed the routine nature of some technical writing jobs and wondered whether college graduates who perform well in entry-level positions struggle with career advancement.

We started talking to academic and industry colleagues, and their informal comments made us realize two key ideas:

- Effective technical writing across disciplines remains a much needed skill; and
- Leadership and innovation in the field are taking place at a new level.

Key skills mentioned in this new level of practice and innovation include, among others, the following:

- Systems thinking
- Computational thinking
- Business analysis
- Technical aptitude

To lead and innovate in technical communication, professionals now need these skills in addition to the more traditional skills in rhetorical analysis, writing, and design expected of technical communicators. The technical writing level is an important starting point, but professionals in the twenty-first century rarely can build a career on it alone. We believe that students who graduate with skills and competencies at this level will be better prepared to lead and innovate in our discipline.

Our Research Project

To advance from informal conversations to properly documented evidence, we designed a multi-stage, multi-year research project. We are gathering qualitative and quantitative data that will help technical communica-

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tors understand this new level of practice. We are working with the objective of developing strategies for preparing students to work and conduct research in technical communication. Our project is guided by the following question:

> What can industry leaders, university administrators, and educators contribute to the development of curricula that prepare students to be leaders and innovators in the rapidly changing profession of technical communication?

We ventured out to study the skills and competencies that students need after graduating from college. We started the project by organizing workshops with industry leaders and university administrators and educators.

So far, we have conducted two workshops:

- At the ACM SIGDOC conference in August 2017 (28 participants—mostly from academia); and
- At the Best Practices conference of the Center for Information-Development Management in September 2017 (15 participants—the majority of them from industry at a managerial level).

We aimed for representation from industry and academia in both workshops. During the SIGDOC workshop, with a mostly academic audience, we invited experts from industry to describe their experiences with graduates from technical communication programs. At the Best Practices workshop, we performed as academic ambassadors for our audience of colleagues in industry; as ambassadors, we described the current education landscape and identified ways those working in industry might partner with academic programs to help bridge the skills' gaps. In both workshops, we asked participants to share their perspectives on what the changing activities, needed skills, and hiring needs in the profession mean for technical communication education. We divided workshop participants into small groups and asked them to discuss a series of questions related to our larger research question; each group audio-recorded their discussion and took notes in a Google Docs file.

Preliminary Findings

After analyzing audio-recorded data and small group reports from the workshops, we identified trends indicating changes needed in two main directions. These trends fall into two main categories:

- Curriculum and program design
- Skills and competencies

Changes for curriculum and program design include:

- *A move toward more interdisciplinarity*, with programs that mirror workplace activities.
- *A rethinking of what we call our programs and degrees*, because terms in the format of *content-X* (strategy, design, engineering, management) frequently appear as the profession's main title.
- *A common interest in "bi-directional" curriculum and program design,* because some academic programs want to collaborate with practitioners and managers, and the interest is reciprocal in some industry groups.
- *An agreement that good technical writing skills remain a core competency,* even if they can be labeled as mundane and even boring.

Changes in skills and competencies taught include:

- *Diversity* is a workplace reality, and academic programs should not ignore this fact.
- *Collaboration* (with or without an introduction to Agile methods) should be a constant in courses and projects.
- *Structured authoring* should be included as a building block to explore *content-X* approaches.
- *Critical thinking* and *data-based argumentation* should be taught across disciplines.
- Having the *right personality* is key to succeeding in the profession, and our participants defined that as being inquisitive, adaptable, and teachable, among other traits.

Based on these preliminary findings, we developed interview guides for 25-30 one-on-one conversations with experts from academia and industry. We are also planning to conduct surveys of practitioners and educators. Through the surveys, we will obtain additional information for our bidirectional curriculum and training program recommendations. We hope that those recommendations inspire changes for how academic and industry environments prepare college graduates for the changing profession of technical communication.

Acknowledgments

Kaitlyn Heath and Caroline Stewart provided invaluable assistance with data analysis and overall creative input as part of an undergraduate research project at Virginia Tech.

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REBEKKA ANDERSEN *(*randersen@ucdavis.edu*) is an Associate Professor in the University Writing Program at the University of California, Davis, where she teaches courses in professional and technical communication and digital literacy. She serves on the CIDM Advisory Council, on the editorial board of* IEEE Transactions on Professional Communication*, and on the review board of several journals in the field of technical communication. Her research focuses on the diffusion of content management methodologies and technologies in information development teams and on building stronger connections between academia and industry.*

President's Address from the 2018 Summit

BY JANE WILSON

THANK YOU FOR allowing me to serve the STC as President. It is an absolute honor, and I am looking forward to an exciting year.

As you know, the theme of our Summit is "Communicating the Future," and, in our 65th year, it's fun to think about the past, but we also need to think about the future of STC.

At the opening ceremony, Liz Pohland, our CEO, asked us all to think about the brand of STC—how do we communicate what we do, individually and as a Society—to the rest of the world.

How can we do a better job of that? Because we need to. We need to make sure we provide value to our membership—and, just as importantly, communicate and demonstrate that value to both current and potential members.

I have heard some concern about the future of the Society, and we do face some challenges. Membership is always a concern, as are finances. But we are also doing a lot of things right.

We are always looking at member value and how we can improve it while also keeping an eye on the bottom line.

Our certification program is thriving, and we are making strides to align our educational offerings with the program. We also want to provide more advanced and technical topics to keep our members to the forefront of the discipline.

We provide a strong community that supports and nurtures technical communicators. Our fellow members are our network, our support, our personal job bank, and sometimes our own personal help line. (Hey Bernard, how do I ….?)

We are looking for ways to define the economic impact of technical communication, and we are reaching out to similar organizations to improve communication and collaboration.

This past year, the STC Board of Directors refined the Vision Statement for our Society. It reads:

> The Society for Technical Communication strives to be the international authority in content design and delivery, advancing the professional development of our members and articulating the value of technical communication within industry and academia.

I am looking forward to us all working together to meet that vision, to strengthen the society and raise its profile, and to prepare our members to succeed in the workforce.

I am so proud to have the opportunity to lead this organization, with its strong 65 year history and its hopeful future. I thank you again for this opportunity.

Meet the May 2018 *Technical Communication* Cover Artist

AS A CLASSICALLY trained artist who possessed natural talent from an early age, Rick Forgus is a passionate illustrator with the ability to create on paper and screen any image you can imagine. His illustrations have garnered awards and praise. He enjoys the tactile feel of lead and paper, the scent of fresh pressed ink, and the unlimited opportunities of technology.

A day rarely passes without Rick spending time in his studio, surrounded by an impressive collection of inspirational books and art. His tools include an old-school drawing table as well as high-powered computers. Adobe Illustrator is a constant. The drawing tools, layers, and palettes offered in Illustrator provide opportunities to experiment, adjust, and explore quickly and efficiently.

As an artist, the biggest challenge Rick experiences with each project is the blank piece of paper. His largest reward is the satisfaction of presenting each client with a winning solution.

Rick finds inspiration from the work of illustration masters Otis Shepard, Joseph Binder, Abram Games, Bob Peak, and Charley Harper. To see more of Rick's work or to contact him, please visit *www.atomicwerewolfstudio.com*.

To view the May 2018 issue, please visit *https://www.stc.org/techcomm*.

STC is pleased to announce the call for cover illustrations for the February and May 2019 issues of *Technical Communication*. The deadline for submissions is 1 December 2018.

For the February 2019 issue (a special issue on content strategy), we invite cover illustrations on the subject of the **theory, teaching, and practice of content strategy.**

For the May 2019 issue, we invite cover illustrations on the subject of **finding your footing in the world of developer docs**.

Cover illustrations might be diagrams, drawings, photographs, collages, infographics, cartoons, comic strips, or brief graphic narratives.

For either issue, please submit your cover illustration (approximately 20x20 cm or 8x8 inches) as a high-resolution (300 dpi or better) jpg file by **1 December 2018** to *tceditor@stc.org* with a brief explanation (100-200 words) of how your illustration addresses the cover subject. A five-member international jury of specialists will organize anonymous review of the submissions and choose each issue's cover illustration. Honorable mentions will be published inside the journal.

2018 President's Award

THE PRESIDENT'S AWARD honors those who have made distinguished contributions to the profession of technical communication or the Society. The President's Award is awarded solely at the discretion of the STC President, who announces the names of the recipients during the opening session of the STC Summit. This year, President Alyssa Fox announced Andrea Ames as the 2018 President's Award winner.

Andrea's citation reads: "For your long-term commitment to STC as advisor and advocate in your service as STC President and *Intercom* editor, involvement on the *Intercom* Editorial Advisory Panel and the Business Value of Tech Comm task force, and your work in many other roles. Your visionary thinking and public speaking about the content experience exemplify your leadership in the ongoing evolution of the technical communication discipline."

Congratulations to Andrea!

Share Yourself with *Intercom* Readers

WE'RE LOOKING for members to contribute a first-person column for a future issue of *Intercom*. The magazine has several member-focused columns: My Job (an overview of your day-to-day work), Off Hours (your hobby or side gig), Looking Back (senior STC members providing perspective earned throughout their career), Community Spotlight (highlighting a unique or interesting initiative by an STC community), and Witful Thinking (a humor column that looks at the lighter side of tech comm).

Would you like to share your story with *Intercom* readers? Email James Cameron at *james.cameron@stc.org* for more information, samples, and to volunteer!

We've Failed, and We Need to Take the Blinkers Off

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BY ALAN J. PORTER | *STC Senior Member*

I BELIEVE THAT we have failed the technical communication profession.

Why? Because we've become myopic in the way we see ourselves. We tend to talk about nothing but writing technical manuals and online help files. And while that is an essential part of what we do, it isn't everything. In fact, I'd argue it's a minor part of what we should be doing.

Our professional body isn't STMW—Society for Technical Manual Writing—it's STC—Society for Technical Communication. The key to our future—and the future of those entering the profession—is in the last word of that title, and it's the one word we seem to have forgotten: *communication*.

Our job, at its core, is a simple one:

> We take the technically complex and make it simple, and then communicate that knowledge to the people who need it.

The ways in which those in need want to access and consume that knowledge are changing, and we need to change, too. Some text accompanied by an occasional illustration, photo, or screenshot is no longer sufficient.

The ways that our customers are interacting with our content are rapidly changing. It was a standard refrain from many content strategists (and I was one of them) that every company is a publisher. If you produced any type of content intended for consumption outside the company, from marketing brochures, to invoices, to user manuals, and more, then you were, by definition, a publisher. As publishers, we followed the traditional broadcast-based publishing model. We produced what content we thought our customers needed, and we printed it, or put it on a webpage, in the hope that our customer would find it and read it.

That model is no longer sufficient or sustainable. Customers now expect to not just consume, but interact with all types of content in all types of ways, including social media "likes," comments on videos, online chatbots, and voice command interfaces like Siri and Alexa.

It's no longer enough for companies to think of themselves as publishers; they must now act like media producers.

When I began my career as a technical writer, I worked alongside a team of other writers and a handful of illustrators, plus a couple of production people who knew about formatting and layout. In recent years, I've worked with graphic designers, video and podcast producers, voice artists, animators, graphical storytellers, conversation specialists, translators, experience and instructional designers, and more. Where are these communicators in STC? We should be providing a technical communication community that includes, and encourages, these disciplines.

It's no good understanding standards like DITA and Schema.org, or how to mark up content in XML or Mark Down, or the underpinnings of online help systems or wikis if we don't also have a basic understanding of color theory, audio production, framing, storytelling, and more. We don't all need to be experts in all aspects of communication, but we should be building teams that reflect those different disciplines and can work together to deliver the experience our customers want and deserve.

In my previous column, I talked about the convergence of content that is happening across organizations. Our customers don't care where the content comes from, and we in the industry need to be aware of that. We need to look beyond our traditional departments and content production pipelines and search across the enterprise for the content to answer our customer's questions.

There is a similar convergence happening with the skills needed to find, curate, develop, combine, manage, and deliver that content. We as a profession need to recognize that.

It's time to take the blinkers off, and become the catalysts for changing what it means to be a *technical communicator.*

As pre-sales content and post-sales content begin to overlap, Alan Porter provides the latest insights about our role in that evolution in Convergence Conversations. Learn through this column to build bridges and form synergies with your counterparts in marketing. Contact Alan at *ajp@4jsgroup.com* to ask a question or propose a topic for him to cover in this column.

(Grammar) Check, Please!

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BY MICHELLE CORBIN | *STC Fellow*

ONE OF THE most maligned tools used by writers of all kinds is the grammar checker. While a grammar checker can never replace a human editor, it can be a useful tool in the technical communicator's toolbox. One of my favorite blogs, *An American Editor*, explored grammar checkers as an editing tool in a guest post by Jack Lyon, and asked if they could improve an editor's productivity. Yes, I do see value in using grammar checkers as a technical writer or as a technical editor. Let's explore the use of grammar checkers in the editing process.

What is a grammar checker?

A grammar checker is a computer program that uses a dictionary and a set of linguistic rules along with pattern matching to parse and analyze a sentence. These programs can be integrated into document processing software, can be add-on programs, or they can be stand-alone programs. Microsoft Word includes a grammar checker as a feature, but Acrolinx is an add-on (or stand-alone) program. While Arolinx at its core is a grammar checker ("advanced linguistic analytics engine"), it promotes itself as "content optimization software" (per their website). While there are other grammar checkers in the playing field (WhiteSmoke, Grammarly, and ProWritingAid, to name a few), I've only ever used Microsoft Word's grammar checker and Acrolinx.

Who should use a grammar checker?

Personally, I think that only professional (trained) writers and editors should use grammar checkers. If someone writes something and then blindly uses the grammar checker to correct all issues that it identifies, as untrained writers might be tempted to do, the writing will most certainly be worse than it was before. Or, as Geoffrey K. Pullman, a linguistics professor, put it in a *Language Log* blog post: "accepting the advice of a computer grammar checker on your prose will make it much worse, sometimes hilariously incoherent."

However, trained technical writers and trained technical editors can use a grammar checker with a more critical eye to what is being flagged as an issue and use our own writing skills and knowledge to make changes to the text.

When should we use a grammar checker?

If you're a technical writer, I think you should turn the grammar checker off while writing. Writing is a complex process that involves a lot of rewriting. Once you have a completed draft, you can turn on the grammar checker (and spell checker) to do a last pass through the text to check for issues, even if you are lucky enough to have a technical editor review your work.

If you are a technical editor, you can use grammar checkers as a first pass to clean up the draft and catch any egregious errors that might distract you from addressing larger architectural and stylistic issues that grammar checkers just won't catch, especially if you are editing text from subject matter experts or from non-professional writers.

How should we use a grammar checker?

Technical writers and technical editors should only use a grammar checker if it can be customized. Different types of writing (which have different audiences) require different

In Editing Matters, Michelle Corbin covers matters (topics) about editing that matter (are of consequence) to communicators of all kinds. Watch this space to understand more about editing and what you can do to improve the quality of your content. To suggest a topic or ask a question, contact Michelle at *michelle.l.corbin@gmail.com*.

sets of grammar and style rules; effective grammar checking cannot be one size fits all.

Microsoft Word's grammar checker has been improved quite a bit over the years (see a review of its enhancements by Brien Posey in *Redmond* magazine), including being able to customize which rules are checked for different styles of writing (casual, standard, formal, and technical). At IBM, we use Acrolinx, and we have the IBM Style, Word Usage, and Terminology rules programmed into its rules engine, including our own help topics for the issues that get flagged.

Even with extensive customization of grammar checkers such as Acrolinx, the use of a grammar checker still requires the critical eye of a trained technical writer or editor to make appropriate and effective updates to the text. After all, computers are still quite fallible, identifying issues that are not issues, especially when it comes to analyzing the complexities of the syntax of a language (sorry, HAL).

So, what's the deal with grammar checkers?

When Linda Oestreich and I taught our Technical Editing Fundamentals certificate workshop for STC a few years back, the first homework assignment for our students was to use a grammar checker on a paragraph of text, evaluate the grammar checker, and report back on how grammar checkers should be used. My favorite response was this: "Using a grammar checker was like using a scientific or engineering calculator; only those skilled in language can use it well, and it is quite easy to become too dependent on it." Grammar checkers will continue to improve, and might become as ubiquitous (and annoying) as auto-correct is on all our mobile devices.

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State of the Digital Art:

An Interview with Scott Abel, The Content Wrangler

BY PAUL PERROTTA | *Guest Interviewer*

CONTENT EXPERT Scott Abel is known throughout the technical communication industry (and beyond) for spotlighting trends, methodologies, and technologies that can help to solve (or highlight) problems in business communication. His company, The Content Wrangler, has grown from a single-person contracting firm to a global media company providing industry research, in-person and Web-based conferences and educational events, and a series of influential books with XML Press. A month before conducting his popular annual conference this past November, Information Development World 2017, Scott was diagnosed with (and had surgery to remove) a not-so-small cancer tumor in his brain. I'm Paul Perrotta, and I'm filling in for Scott this issue while he's on medical leave. Read this interview for a glimpse at what Scott sees as industry trends and how his surprising cancer diagnosis has affected his life, both personal and professional.

Paul Perrotta: For two decades now, you've been speaking about technical communication content, and you've been advocating for effective and efficient production and delivery. What changes have you seen?

Scott Abel: That's right, for about twenty years I've been singing a similar refrain: content should be respected as the potentially powerful asset it is—it should be created, managed, translated, and delivered efficiently and effectively. Its management should be governed and its rules enforced—consistently—and, where beneficial, automatically.

PP: You're a frequent presenter at content industry events not only in technical communication, but beyond that as well. How have you been able to work your way into tangentially related content events? What makes you interesting as a presenter to those event organizers and their attendees?

SA: Technical communication best practices and methods are needed outside of the technical communication department. Most content creators (in tangentially related fields) have never heard of topics like single-source publishing, progressive disclosure, structured authoring, component content reuse, or intelligent content. I repackage technical communication success/horror stories and use them to engage content professionals in other fields.

It's relatively easy to get accepted to speak at all types of conferences. My strategy involves mapping what I know and want to talk about to the theme of the event, the expected audience, and the focus of the event organizer. For example, if I want to get noticed by manufacturers, I could go to a conference filled with technical writers and pitch my ideas to them, hoping that some of them work in the manufacturing sector. But that isn't likely to get me noticed by many new prospects. Instead, I could repackage my talk on how to produce multiple content deliverables simultaneously from a single source and refocus it on creating a *content factory*, something that sounds attractive to manufacturing conference organizers. As it turns out, my job is about providing allure. The more alluring my topic is—the more unique, the more innovative, the more intriguing, and the easier it is for them to understand—the more likely they are to accept me.

Of course, it also helps that I have a trail of content on the internet to back up my request. Conference organizers can find evidence (the most important of which is video of my delivering previous talks), the hundreds of articles (and several books) I have written or contributed to, and my social media presence—these all add credence to my authority.

PP: You've always been a confident, energetic—and perhaps even edgy—presenter, whether it's at STC, LavaCon, tekom Europe, tekom India, or Localization World events around the globe. Attendees at your talks find it hard to resist your enthusiasm for hot topics and your desire to see others tackle content challenges in a strategic way. Lately you've incorporated a sometimes intimate storytelling angle into your presentations. How did that come about? How is it working?

SA: Again, here is a great place for neuroscience to enter the equation. I took a workshop on neuroscience and presentations two years ago. That really opened my eyes to the important role neuroscience should play in determining what we communicate, when, and how.

In the class, I gave a talk in front of a crowd. After my talk, we took 10-minute break. When each attendee returned to the room, they were videotaped answering a few brief questions about my session. These weren't the results I would have anticipated. While almost everyone said they enjoyed my presentation (98%), and many people thought I was knowledgeable (99%),

In the digital age, change happens quickly. This column features interviews with the movers and shakers—the folks behind new ideas, standards, methods, products, and amazing technologies that are changing the way we live and interact in our modern world. Got questions, suggestions, or feedback? Email them to *scottabel@mac.com*.

believable (97%), and funny (96%), few could actually recollect what the main point of my talk. I later learned that's because I wasn't creating content that maps easily to the way the human brain is wired. I failed to provide the attendees with *attention triggers* (to alert them to the relevance of the talk) nor with *memory magnets* (things that make attendees remember the main point I was trying to make).

Since then, I have worked hard to start with an uncomfortable topic as an *attention trigger* (obesity and cancer have been recent triggers) and I make the presentation about me and my experience and how it could have been dramatically improved by adopting the main focus of my talk. After I clearly state the problem as a personal story, I make sure that I provide adequate evidence that the audience (or their customers) are likely to experience similar challenges. Once I get them hooked on the storyline, my job is to make my main point memorable.

Neuroscience research shows that attendees can only recall 10% of what you say during a presentation, which begs the question, "Why are we trying to say so much?" Researchers often point out that few presenters are equipped with neuroscience knowledge and their presentation approach is often shaped by the desire to prove to the audience they are knowledgeable by sharing far too much information that the audience simply won't be able to process or recall. Then, the software we use to make slide decks complicates comprehension—after all, how does one compare and contrast two ideas using a bulleted list?

I adopted a personal storytelling approach over the past few years for two big reasons. To be successful as a presenter, I have to grab the attention of the audience and maintain it. Then, I have to use techniques designed to get them to remember the main point of my talk long after the conference is over. I failed at both of these goals most of the time. Neuroscience research shows that most attendees cannot remember most of what a presenter says on stage. They forget within as little as ten minutes.

By borrowing neuroscience principles, and applying them to presentations with a storyline (something familiar that gets their attention—things that make them happy, sad, angry, etc.), I am able to attract more attention from the audience to my talks and help ensure that the largest number of attendees possible remembered the main points of my talk.

PP: Scott, you have been an outspoken and passionate consumer advocate regarding content created by professional communicators. You've spent a lot of time recently in a hospital undergoing medical treatment. Can you tell us a little about your experience as a patient? How has it changed your vantage point on what professional communicators should focus on in order to provide the most value to their consumers?

SA: Content created for patients by insurance companies, hospitals, medical device manufacturers, doctors' offices, and pharmaceutical companies can have negative impacts on the patient experience.

Before I was diagnosed with Primary Central Nervous System Lymphoma and underwent brain surgery and nearly a dozen rounds of chemotherapy, I used to believe that customer support websites provided the worst content experiences because they are often an afterthought (not part of the product) and, far too often, they only regurgitate what was published previously elsewhere, without augmenting or improving it.

But I was wrong.

While customer and technical support sites are all likely to have room for improvement, the errors and omissions introduced by those who create them are nothing like the healthcare content that is almost universally confusing, overly focused on attempting to limit liability, and lacking in context and utility.

If I were to write a book on this subject (and I am), it would be called, *Not Good Enough: The Failure of the American Healthcare System to Deliver Patient-Focused Information*. The book would focus on the need for neuroscience-driven content strategies for communicating with patients. Insurance, doctor's offices, pharmacies, hospitals, and medical device companies need to step up their game and learn to use science to communicate with patients who are often frightened, anxious, and unsure what will happen to them.

PP: Your first book, *The Language of Content Strategy*, was published in 2014 and was co-edited with STC Fellow Rahel Anne Bailie and co-created with fifty other contributors. Since then, you've produced several additional books using the same model. Can you talk a little bit about how *The Language of…* series came to be and what some upcoming topics might be?

SA: Rahel and I decided to help some members of the fast-growing content strategy sector avoid recreating new methods, tactics, tools, and techniques that technical communicators had honed over the previous two decades. We decided to showcase some of the best and the brightest in the technical communication content strategy sector to help elevate the profession and extend its reach and relevance into other content-producing arenas. We used the book project to create a multichannel deliverable (a book, an eBook, an audio book, a website, and a deck of terminology flashcards) to help us demonstrate the many concepts we believe content strategy professionals should understand to succeed; in other words, to practice what we preach.

Once we developed *The Language of Content Strategy*, we recognized that the approach we used could be mimicked by other editors to create their own *The Language of…* books. So far we've produced books using this same approach on topics including technical communication and local-

ization. The next book in the series covers vocabulary words of importance to business and content pros who should understand the basics of *cybersecurity*. A subsequent release will cover the vocabulary of *content design*. We also have books in the works covering *business storytelling*, *visual communication*, and *eLearning*.

Our ability to produce these books with minimal effort is made possible because we use the lessons learned from multichannel XML publishing, component content management, and structured collaborative authoring. As the publisher, XML Press has worked with us—with the help of DITA expert and former IBMer Don Day—to create a toolkit that allows contributors to submit their content for review, editing, and approval, and that makes it easy for the publisher to push the content to multiple output formats with minimal handcrafting.

PP: You also conduct surveys of the technical communication industry on such topics as delivery channels and technologies. At your most recent Information Development World conference, you showcased the value of chatbots and voice-enabled interfaces. Did the idea for those new technologies come from the surveys? What else did you learn from your research?

SA: Indeed, our last two Information Development World events centered around helping technical communication teams understand how chatbots and voice interfaces (chatbots without a graphic user interface) work and what is needed to prepare and publish content to them. I knew instinctively that these technologies would begin to play an increased role in providing content to those who need it. It just made sense that consumers of all types, having gotten used to using chat apps and interactive voice assistants like Apple Siri, Google Home, and Amazon Alexa, would expect that content providers like technical documentation teams and customer support departments would need to design and prepare their content for these emerging channels.

The 2018 Chatbot Adoption Survey that we conducted found that 95% of content professionals surveyed say their companies are planning to adopt chatbots sometime before 2019. 50% of those respondents say those plans will result in a chatbot launch in the next 6 months, while 32% say they will launch in the next 12 months. 13% said they expect a chatbot to deliver content to their customers by mid-2019.

While respondents claim the companies for which they work will implement chatbots to deliver a wide variety of content, 65% say they will use chatbots to deliver customer support and technical documentation content to those who need it.

Similarly, 30% of respondents say they plan to use chatbots to deliver guided customer journeys designed specifically to help customers navigate a set of content to achieve a goal. 35% of respondents said that they believe their companies will also leverage chatbots to deliver marketing and sales content.

Among those respondents who say their employers do not plan to adopt chatbots, the top reason for this belief—"because chatbots cannot replace human support agents"—appears to indicate that there is widespread misunderstanding of what chatbots can—and should—do, and the value they might provide those who deploy them.

PP: What trends are shaping the future of technical communication today?

SA: Consumer choice is the biggest driver of change in the field of technical communication. The more choices our customers have, the higher our bar to success. Disruption is the new black, and those who innovate to keep pace will be the winners in the long run.

PP: What is the biggest challenge facing the discipline of technical communication today?

SA: The inability to adapt quickly to threats and opportunities.

PP: For those who haven't yet discovered The Content Wrangler, where are the best places for readers to find you?

SA: Sign up for our email announcements on *TheContentWrangler.com* and consider joining The Content Wrangler Community on LinkedIn. You can also follow me on Twitter *@ScottAbel*. I also write a column about content on *Medium.com* and about thought leadership on *forbes.com*.

***Note: This is an excerpt from a longer interview. You can read the full interview on* www.stc.org/intercom.**

PAUL PERROTTA *is a technical communication consultant with over 34 years of experience. He has worked at high-tech companies like IBM, Siemens, Pyramid Technology, Cisco Systems, and Juniper Networks, and has presented at conferences such as Intelligent Content, CIDM Best Practices, tekom Europe, CIDM RIDE, and Information Development World about his strong interest in principled leadership, corporate life, and the business sides of technical communications. You can learn more about him at* linkedin.com/in/paulperrotta.

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Learning, the Internet of Everything, and Us

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BY CHARLES DULL and **JEANETTE EVANS**
| *STC Associate Fellow*

HIGHER EDUCATION MUST continue to meet the learning needs of a changing society. The challenge can come with faculty that fail to change their dated ideas, continue to show their inability to understand how people learn, and refuse to adapt. We are seeing some change in the academy already, and even seeing projections of fewer institutions of higher learning. Consider that we could lose sight of what society and students need and how to build to meet those learning needs.

Consider also how we in our technical communication communities must also meet the needs of a changing society. We should be careful not to resist when it comes to changing our dated ideas. We should also understand how people learn today and continue to adapt.

In the academic setting, we can go to a group of students who are studying in a building and ask if they like online learning. They say they do not. We assume the desire for online learning is declining, and we need more in-person classes. Of course, if you go to students that take only online classes, they might say that online is best. They could also say that at times online is the only way they can attend college, and we need more online classes. It is not a matter of getting the "right" answer.

A researcher who never took an online class and has a limited understanding of instructional design could conduct the study. This researcher could find that online is a low-quality method of distributing learning. In a way, they found what they hoped to find. We can also look at other faculty who see themselves as experts in the field and collaborate with instructional designers. They believe they build high-quality content for online classes.

We have a complex model that is constantly changing. It is also a complicated model of how students learn. Learning in the Internet of Everything era is open. It is not confined by strictures, structures, and dated pedagogies.

There is also the dynamic of students. There could be a critical mass of students who want a certain learning method or mode of delivery. There could be points at which student populations are seen as a whole, wanting *all* methods and modes of learning. They want it to meet their needs when those needs need arise. This suggests that learning is no longer a complication but intrinsically complex.

In a way, we ignore the best learning models. Consider that the pace of learning for the first five years of life is greater than at any other point. We continue to think learning occurs when you sit down, keep quiet, do what I do, learn to say what I say, and pass this test that the government says is good. We can call that learning, and pat ourselves on the back.

We even ignore the giants of technology and how they learned. It was complex, and typically did not fit the current model of learning. It is time to throw out old models. In an age of digitization, didactic models do not deliver the outcomes needed for the Internet of Everything.

We need leaders for this new age of learning. What we currently have for this task are followers. When there is an innovation in one college, others rush to copy. Then they wonder why one model will not work everywhere. They fail to understand that learning is complex. Complex systems require leaders who do not look for someone or some system to mimic. They understand the complex nature of learning and make visionary decisions to meet the learning needs of those who will live in the Internet of Everything.

This column investigates emerging technologies in education and how we might use them in our work. Whether it is social media, wearable technologies, the latest in printers, personalization, big data, BYOD, cloud computing, mobile apps, MOOCs, analytics, digital identity, haptic interfaces, augmented reality, or the Internet of Things, we can all benefit from current thinking on these technologies. Contact the columnists at *jeanette.evans@sbcglobal.net.*

RESOURCE

Dull, Charles. "Learning in the Internet of Everything Era." The Evolllution. 6 July 2017. *https://evolllution.com/revenue-streams/distance_online_learning/learning-in-the-internet-of-everything-era/.*

Intercom's Student Perspectives Column Seeks New Voices

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BY RYAN WEBER | *STC Senior Member*

AS A UNIVERSITY PROFESSOR, I love helping students get their work published, especially if they are publishing for the first time. Students feel excited and validated to see their work in print, and our field gains fresh perspectives on new trends and enduring issues. Now, I get to channel my passion for student publication into a new role as editor of the *Intercom* Student Perspectives column. I take over this role from Dr. Kirk St.Amant, and I am excited to fill his rather imposing shoes.

Intercom dedicates the Student Perspectives column to publishing short (750–1,000 word) entries written by students enrolled in graduate and undergraduate programs in technical, scientific, professional, or business communication. We accept pieces from single or multiple authors, and we encourage international submissions. We have already featured some terrific, exciting work. Since the column's creation, *Intercom* has run student pieces on leveraging Twitter to improve campus communication, writing for a North American audience, and using technical writing skills to serve in an advocacy role.

Pieces like these bring new ideas and points of view to our field. Student voices help our field grow, but they also keep us young (even when those voices come from non-traditional students). These publications give students a writing sample that can help them move one step closer to graduate work, academic publishing, and professional writing. Highlighting student work also helps us bridge the notorious academy-industry divide, which can trap helpful insights in the university while preventing scholars and students from thinking about the full implications of their ideas.

To highlight more student voices, *Intercom* publishes the Student Perspectives columns on a wide variety of technical communication topics. We are particularly interested in columns that take a unique perspective on the following topics:

- Leadership in technical communication, both in industry and academia
- The state of the technical communication industry
- Proposed uses of social media in technical communication contexts
- New and emerging media trends/developments that might affect technical communication practices
- Legal and policy developments that could affect technical communication practices
- Emerging practices in information design—including document design, Web design, and interface design
- Strategies for understanding audiences and users and meeting their needs
- Examinations of usability/user experience design approaches as related to technical communication
- Ways to bridge the academy/industry divide in technical communication
- Content management and content strategy practices associated with technical communication
- Ethical issues in technical communication
- Educational approaches related to the teaching of technical communication (particularly in online contexts)
- International aspects of technical communication

Technical communication has so many rich, diverse topics to cover, and new trends and ideas arise all the time, so I expect students have a lot they want to talk about. Articles can include primary or secondary research, theory, personal experience, or a mix of all of the above. We seek columns informed by academic inquiry that can also speak to a wide variety of technical communicators.

I encourage students to send their work in for consideration or to contact me at *rw0019@uah.edu* to pitch ideas or topics for columns (please include the subject line "*Intercom* Student Perspectives Column" to ensure a quick response to the email). You can send queries, suggestions, or questions in advance of your submission, and I will guide you through revisions, if necessary, to get your work publication-ready.

I am so pleased that *Intercom* and the Society for Technical Communication have committed to publishing student voices. Our current students will serve as the next generation of scholars and practitioners, so we need to bring them into our conversations now to prepare for our future. Students, this is your chance to enter the conversation. For the rest of us, this is our chance to listen.

The Student Perspectives column provides insights, experiences, research, and more from students across technical communication. We're proud to introduce new voices, inject new ideas, and give the practitioners of tomorrow a platform to begin publishing their thought leadership today! Columnist Ryan Weber teaches technical communication at the University of Alabama in Huntsville and hosts the podcast 10-Minute Tech Comm. Contact him at *rw0019@uah.edu* to submit or pitch a column idea.

Mark Your Calendar

Organization Events Across the Globe

FYI lists information about nonprofit ventures only. Please send information to *intercom@stc.org.*

1 23–25 July
ProComm 2018, the IEEE International Communication Society's annual conference, will take place 23–25 July at the Bahen Centre for Information Technology at the University of Toronto, ON, Canada.
InterChange
http://procomm2018.utoronto.ca/
ieeeprocomm@gmail.com

2 1–5 October
The **Human Factors in Ergonomics Society** (HFES) will hold its 2018 International Annual Meeting 1–5 October at the Philadelphia Marriott in Philadelphia, PA.
HFES
https://www.hfes.org/
http://cms.hfes.org/Cms/media/CmsImages/2018-AM-flyer.pdf

3 4–6 October
The **Council for Programs in Technical and Scientific Communication** (CPTSC) annual conference will be held 4–6 October 2018 at the Graduate Hotel in Minneapolis, MN.
CPTSC
https://cptsc.org/conference/

4 7–9 October
The 2018 **Public Relations Society of America** (PRSA) International Conference will take place 7–9 October at the JW Marriott Hotel, Austin, TX.
PRSA
http://apps.prsa.org/Conferences/

5 24–27 October
The **American Translators Association** (ATA) will hold its 59th Annual Conference 24–27 October at the New Orleans Marriott in New Orleans, LA.
ATA
https://www.atanet.org/conf/2018

6 26–27 October
InterChange, the STC New England Chapter's annual technical communication conference, will take place 26–27 October at the UMass Lowell Inn and Conference Center in Lowell, MA.
InterChange
http://stcnewengland.org/interchange
admin@stcnewengland.org

* STC-related event

Communicator, Gardener, and … Apiarist?

BY ANDREA L. AMES | *STC Fellow*

EIGHT YEARS AGO, I moved back to my home state of Maine from California. In California, I was a hobby gardener, growing roses, hibiscus, iris, bird of paradise, bougainvillea, day lilies, brugmansia, and lots of other gorgeous flowers. I also grew some amazing trees, like avocado, ornamental cherry, and orange. In Redwood City, which is (mostly) in "hardiness zone" 9b—essentially gardening nirvana—you can grow just about anything (except plants that require a frost or a cold, dormant period).

When I returned to Maine, needless to say, growing flowers was a very different story. After a couple of years of reacclimating myself, I decided to take the Maine Master Gardener course and become a Master Gardener Volunteer. I wanted to gain more knowledge about the local flora and how to successfully cultivate ornamental plants, as well as to contribute to solving Maine's serious food security issues.

I had no idea, however, that my desire to have a beautiful flower garden would lead to *beekeeping*!

The Master Gardener program offers not only 40 hours of basic training but also many in-depth and related courses for gardeners' continuing education. One of those courses was in beekeeping. After a basic training lesson about native pollinators (which honeybees are *not*, by the way), I wanted to learn more about the role pollination by various means plays in a healthy garden ecosystem, so I took a basic beekeeping course.

If you're a technical communicator deep in your bones, you are probably like me, and nearly any new "technology" is fascinating. If that's the case, and you don't have time for a new hobby, do *not* take a beekeeping course! I had *no* intention of keeping bees, but after only two class meetings, I had ordered two nucleus colonies[1] of bees and was planning my shopping list for all of the equipment I would need to keep those two hives of little ladies happy and healthy!

I also dug into learning as much as possible, reading books, combing through product catalogs, and following the many websites[2] that cater to the health and care of honeybees. Fast-forward to today, and I have:

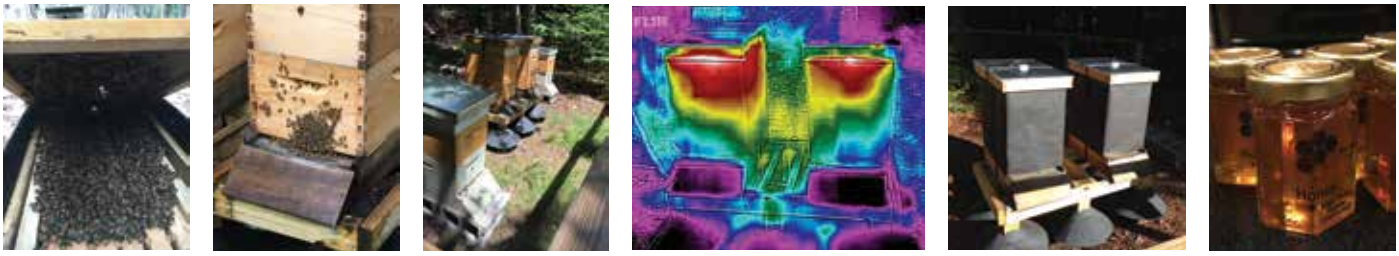
- Successfully nurtured colonies through multiple harsh, Maine winters
- Harvested honey
- Been stung a few times
- Lost some colonies
- Learned a *lot* about these amazing and fascinating creatures—from knowing how to check the health of a colony to why bearding and swarming happen to how to treat colonies for common pests and diseases
- Discovered how much more there is to know—and that we have yet to discover—about the relationship of honeybees, people, ecology, and food

My fun with bees even got me featured in the local newspaper!

Since leaving my staff position last year and starting my own business, I've had less time to work with my bees, but I'm now learning more about what minimum care is required to keep them healthy. The little time that I have with them, now, however, is more than enough reward for me—I don't even need the honey; I just enjoy watching them do their jobs and seeing them thrive!

1 A nucleus colony (aka, nuke) is a very small, but complete, colony (hive) of bees. It includes 4-5 frames of adult bees, various stages of immature bees (eggs, larvae, pupae), honey, pollen, and of course, a queen! Contrast this with a package of bees, which is a mesh box of adult bees and a queen in a separate container. Other than purchasing a full-on colony, which is pretty rare, nukes and packages are the most common ways to start new colonies.

2 If you're interested, and super-geeky (no judgement!), check out *ScientificBeekeeping.com*!



From left to right: 1) In winter, bees form a cluster to stay warm. 2) This group occurred after a mass eviction of drones in the fall. 3) Colonies ramping up for the spring on a cool day. 4) A heat photo of hive clusters. 5) Hives are wrapped in black roofing paper in winter to help the hive survive. 6) Last year, I harvested 4-1/2 gallons of honey … from one hive!

RESOURCES

"California Hardiness Zone Map." Plant Maps. *https://www.plantmaps.com/hardiness-zones-for-redwood-city-california.*

"University of Maine Cooperative Extension Master Gardener Volunteer Program." University of Maine. *https://extension.umaine.edu/gardening/master-gardeners/.*

"Bees' memory sends them back to certain plants." *The Ellsworth American*. 10 May 2017. *https://www.ellsworthamerican.com/living/arts-a-living/bees-memory-sends-back-certain-plants/.*

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CONTACT

For more information about certification and to start the process, visit *www.stc.org* or email *stc@stc.org.*

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Points may be obtained the following ways:

Event	Points
STC Annual Membership (any membership type for Foundation certificants)	2
STC Recorded Webinar (self-study)	1
STC Live Educational Webinar (free, sponsored, and community webinars excluded)	2
STC Online Courses	6
STC Summit Pre-Conference Courses (full day)	6
STC Summit Pre-Conference Courses (half day)	3
STC Annual Summit	8
Begin and complete a college-accredited course related to the Technical Communication field	8
Published articles that relate to any aspect of *Technical Communication* (2/article)	2
Published books publicly available on topics related to *Technical Communication* (5/book)	5
Presentations at conferences related to aspects of *Technical Communication* (2/presentation)	2
Total needed within 2 years post-certification date	**12**

Fees

Exam fees: STC Members $250, Non-Members, $495

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